

SEQUENCE LISTING

(1) GENERAL INFORMATION:

- (i) APPLICANT: BLACK, ROY A  
SLEATH, PAUL R  
KRONHEIM, SHIRLEY R
- (ii) TITLE OF INVENTION: INTERLEUKIN 1B PROTEASE AND INTERLEUKIN  
1B PROTEASE INHIBITORS
- (iii) NUMBER OF SEQUENCES: 24
- (iv) CORRESPONDENCE ADDRESS:
  - (A) ADDRESSEE: DRESSLER, GOLDSMITH, SHORE, SUTKER & MILNAMOW
  - (B) STREET: 180 N. STETSON
  - (C) CITY: CHICAGO
  - (D) STATE: IL
  - (E) COUNTRY: USA
  - (F) ZIP: 60601
- (v) COMPUTER READABLE FORM:
  - (A) MEDIUM TYPE: Floppy disk
  - (B) COMPUTER: IBM PC compatible
  - (C) OPERATING SYSTEM: PC-DOS/MS-DOS
  - (D) SOFTWARE: PatentIn Release #1.24
- (vi) CURRENT APPLICATION DATA:
  - (A) APPLICATION NUMBER:
  - (B) FILING DATE:
  - (C) CLASSIFICATION:
- (viii) ATTORNEY/AGENT INFORMATION:
  - (A) NAME: KATZ, MARTIN L.
  - (B) REGISTRATION NUMBER: 25011
  - (C) REFERENCE/DOCKET NUMBER: IMMUNEX2108
- (ix) TELECOMMUNICATION INFORMATION:
  - (A) TELEPHONE: 3126165400
  - (B) TELEFAX: 3126165460
  - (C) TELEX: 9102211206

(2) INFORMATION FOR SEQ ID NO:1:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 1659 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:

AAAAGGAGAG	AAAAGCCTAA	AAGAGAGTGG	GTAGATGGCC	GACAAGGTCC	TGAAGGAGAA	60
GAGAAAGCTG	TTTATCCGTT	CCATGGGTGA	AGGTACAATA	AATGGCTTAA	GGTAGAAGGT	120
GAAGGAAATA	CTGGATGAAT	TATTACAGAC	AAGGGTGCTG	AACAAGGAAG	AGATGGAGAA	180
AGTAAAACGT	GAAAATGCTA	CAGTTTATAG	AAAAGAAGAA	CGCTTATGGA	TAAGACCCGA	240
GCTTTGATTG	ACTCCGTTAT	TCCGAAAGGG	GCACAGGCAT	GCCAAATTTG	CATCACATAC	300
CGGATAAGTG	AAAGTGATAA	TTTGTGAAGA	AGACAGTTAC	CTGGCAGGGA	CGCTGGGACT	360
CTCAGCAGAT	CAAACATCTG	GAAATTACCT	TAATTGAGGA	AAGAAAGAAA	ATTATGCAAG	420
ACTCTCAAGG	AGTACTTTCT	TCCTTTCCAG	CTCCTCAGGC	AGTGCAGGAC	AACCCAGCTA	480
TGCCCACAGG	GAACGGAAGA	GTGAATCCTC	AGGCTCAGAA	GGGAATGTCA	AGCTTTGCTC	540
CCTAGAAGAA	GCTCAAAGGA	TATGGAAACA	AAAGTCGGCA	GTTAAGTAGA	ACAGGAGAGA	600
TTTATCCAAT	AATGGACAAG	TCAAGCCGCA	CACGTCTTGC	TCTCATTATC	TGCAATGAAG	660
AATTTGACAG	TAGAGTGAAG	AATGTTTGAG	TAATTCCTAG	AAGAACTGGA	GCTGAGGTTG	720
ACATCACAGG	CATGACAATG	CTGCTACAAA	ATCTGGGGTA	CAGCGTAAAA	TAAATTTGGA	780
AAAAGGGATG	TGAAAAAAAA	TCTCACTGCT	TCGGACATGA	CTACAGAGCT	GGAGGCATTT	840
GCACACCGCC	CAGAGCACAA	GTATATGAGG	GCGGACCTCT	GACAGCACGT	TCCTGGTGTT	900
CATGTCTCAT	GGTATTCGGG	AAGGCATTTG	TGGGAAGAAA	CACTCTGAGG	AAGAAAATAT	960
ACACAAGTCC	CAGATATACT	ACAACTCAAT	GCAATCTTTA	ACATGTTGAA	TACCAAGAAC	1020
TGCCCAAGTT	TGAAGGACAG	AACAGGAGAA	TAAGAAACCG	AAGGTGATCA	TCATCCAGGC	1080
CTGCCGTGGT	GACAGCCCTG	GTGTGGTGTG	GTTTAAAGAT	TCAGTAGGAA	GATTGGGAAA	1140
AAAGGTTTCT	GGAAACCTAT	CTTTACCAAC	TACAGAAGAG	TTTGAGGATG	ATGCTATTAA	1200
GAAAGCCCAC	ATAGAGAAGA	AACTAAATAG	TTGAGATTTT	ATCGCTTTCT	GCTCTTCCAC	1260
ACCAGATAAT	GTTTCTTGGA	GACATCCCAC	AATGGGCTCT	GTTTTTATTG	AGGTGGTAAC	1320
CAAGGAGAAG	GGAAGACTCA	TTGAACATAT	GCAAGAATAT	GCCTGTTTCT	GTGATGTGGA	1380
GGAAATTTTC	CGCAAGGTTC	GATTTGGAGA	GAAGTTTGAG	ATTAGCTTCA	TTTGAGCAGC	1440
CAGATGGTAG	AGCGCAGATG	CCCACCACTG	AAAGAGTGAC	TTTGACAAGA	TGTTTCTACC	1500

TCGTTCCCAG GACATTAAAA TAAGGAAACT GTATGAATGT CTGCGGGCAG GAAGTGAAGA 1560  
 GATCGTTCTG TAAAAGGTTT TTGGAATTAT GTCTGCTGAA TAATAAACTT TTTTGTAAAT 1620  
 AATAAATCTG GTAGAAAAAT GAAAAAAAAA AAAAAAAAAA 1659

(2) INFORMATION FOR SEQ ID NO: 2:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 404 amino acids

(B) TYPE: amino acid

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:

M t	Ala	Asp	Lys	Val	Leu	Lys	Glu	Lys	Arg	Lys	Leu	Phe	Ile	Arg	Ser	1	5	10	15
Met	Gly	Glu	Gly	Thr	Ile	Asn	Gly	Leu	Leu	Asp	Glu	Leu	Leu	Gln	Thr	20	25	30	
Arg	Val	Leu	Asn	Lys	Glu	Glu	Met	Glu	Lys	Val	Lys	Arg	Glu	Asn	Ala	35	40	45	
Thr	Val	Met	Asp	Lys	Thr	Arg	Ala	Leu	Ile	Asp	Ser	Val	Ile	Pro	Lys	50	55	60	
Gly	Ala	Gln	Ala	Cys	Gln	Ile	Cyc	Ile	Thr	Tyr	Ile	Cys	Glu	Glu	Asp	65	70	75	80
Ser	Tyr	Leu	Ala	Gly	Thr	Leu	Gly	Leu	Ser	Ala	Asp	Gln	Thr	Ser	Gly	85	90	95	
Asn	Tyr	Leu	Asn	Met	Gln	Asp	Ser	Gln	Gly	Val	Leu	Ser	Ser	Phe	Pro	100	105	110	
Ala	Pro	Gln	Ala	Val	Gln	Asp	Asn	Pro	Ala	Met	Pro	Thr	Ser	Ser	Gly	115	120	125	
Ser	Glu	Gly	Asn	Val	Lys	Leu	Cys	Ser	Leu	Glu	Glu	Ala	Gln	Arg	Ile	130	135	140	
Trp	Lys	Gln	Lys	Ser	Ala	Glu	Ile	Tyr	Pro	Ile	Met	Asp	Lys	Ser	Ser	145	150	155	160
Arg	Thr	Arg	Leu	Ala	Leu	Ile	Ile	Cys	Asn	Glu	Glu	Phe	Asp	Ser	Ile	165	170	175	

Pro Arg Arg Thr Gly Ala Glu Val Asp Ile Thr Gly Met Thr Met Leu  
180 185 190

Leu Gln Asn Leu Gly Tyr Ser Val Asp Val Lys Lys Asn Leu Thr Ala  
195 200 205

Ser Asp Met Thr Thr Glu Leu Glu Ala Phe Ala His Arg Pro Glu His  
210 215 220

Lys Thr Ser Asp Ser Thr Phe Leu Val Phe Met Ser His Gly Ile Arg  
225 230 235 240

Glu Gly Ile Cys Gly Lys Lys His Ser Glu Gln Val Pro Asp Ile Leu  
245 250 255

Gln Leu Asn Ala Ile Phe Asn Met Leu Asn Thr Lys Asn Cys Pro Ser  
260 265 270

Leu Lys Asp Lys Pro Lys Val Ile Ile Ile Gln Ala Cys Arg Gly Asp  
275 280 285

Ser Pro Gly Val Val Trp Phe Lys Asp Ser Val Gly Val Ser Gly Asn  
290 295 300

Leu Ser Leu Pro Thr Thr Glu Glu Phe Glu Asp Asp Ala Ile Lys Lys  
305 310 315 320

Ala His Ile Glu Lys Asp Phe Ile Ala Phe Cys Ser Ser Thr Pro Asp  
325 330 335

Asn Val Ser Trp Arg His Pro Thr Met Gly Ser Val Phe Ile Gly Arg  
340 345 350

Leu Ile Glu His Met Gln Glu Tyr Ala Cys Ser Cys Asp Val Glu Glu  
355 360 365

Ile Phe Arg Lys Val Arg Phe Ser Phe Glu Gln Pro Asp Gly Arg Ala  
370 375 380

Gln Met Pro Thr Thr Glu Arg Val Thr Leu Thr Arg Cys Phe Tyr Leu  
385 390 395 400

Phe Pro Gly His

(2) INFORMATION FOR SEQ ID NO: 3:

- (i) SEQUENCE CHARACTERISTICS:  
 (A) LENGTH: 269 amino acids  
 (B) TYPE: amino acid  
 (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:

Met 1	Ala	Glu	Val	Pro 5	Glu	Leu	Ala	Ser	Glu 10	Met	Met	Ala	Tyr	Tyr 15	Ser
Gly	Asn	Glu	Asp 20	Asp	Leu	Phe	Phe	Glu 25	Ala	Asp	Gly	Pro	Lys 30	Gln	Met
Lys	Cys	Ser 35	Phe	Gln	Asp	Leu	Asp 40	Leu	Cys	Pro	Leu	Asp 45	Gly	Gly	Ile
Gln	Leu 50	Arg	Ile	Ser	Asp	His 55	His	Tyr	Ser	Lys	Gly 60	Phe	Arg	Gln	Ala
Ala 65	Ser	Val	Val	Val	Ala 70	Met	Asp	Lys	Leu	Arg 75	Lys	Met	Leu	Val	Pro 80
Cys	Pro	Gln	Thr	Phe 85	Gln	Glu	Asn	Asp	Leu 90	Ser	Thr	Phe	Phe	Pro 95	Phe
Ile	Phe	Glu	Glu 100	Glu	Pro	Ile	Phe	Phe 105	Asp	Thr	Trp	Asp	Asn 110	Glu	Ala
Tyr	Val	His 115	Asp	Ala	Pro	Val	Arg 120	Ser	Leu	Asn	Cys	Thr 125	Leu	Arg	Asp
Ser	Gln 130	Gln	Lys	Ser	Leu	Val 135	Met	Ser	Gly	Pro	Tyr 140	Glu	Leu	Lys	Ala
Leu 145	His	Leu	Gln	Gly	Gln 150	Asp	Met	Glu	Gln 155	Gln	Val	Val	Phe	Ser	Met 160
Ser	Phe	Val	Gln 165	Gly	Glu	Glu	Ser	Asn	Asp 170	Lys	Ile	Pro	Val	Ala 175	Leu
Gly	Leu	Lys	Glu 180	Lys	Asn	Leu	Tyr	Leu 185	Ser	Cys	Val	Leu	Lys 190	Asp	Asp
Lys	Pro	Thr 195	Leu	Gln	Leu	Glu	Ser 200	Val	Asp	Pro	Lys	Asn 205	Tyr	Pro	Lys
Lys	Lys 210	Met	Glu	Lys	Arg	Phe 215	Val	Phe	Asn	Lys	Ile 220	Glu	Ile	Asn	Asn
Lys 225	Leu	Glu	Phe	Glu	Ser 230	Ala	Gln	Phe	Pro	Asn 235	Trp	Tyr	Ile	Ser	Thr 240
Ser	Gln	Ala	Glu	Asn 245	Met	Pro	Val	Phe	Leu 250	Gly	Gly	Thr	Lys	Gly 255	Gly

Gln Asp Ile Thr Asp Phe Thr Met Gln Phe Val Ser Ser  
260 265

(2) INFORMATION FOR SEQ ID NO:4:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 18 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4:

TACCGGCTGT TCCAGGAC 18

(2) INFORMATION FOR SEQ ID NO:5:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 18 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5:

TACCTATTCT GGGCTCGA 18

(2) INFORMATION FOR SEQ ID NO:6:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 17 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6:

TTGGTCGATA CGGGTGT 17

(2) INFORMATION FOR SEQ ID NO:7:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 18 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7:

CACCACACCA AATTTCTA 18

(2) INFORMATION FOR SEQ ID NO:8:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 18 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8:

ATGGAGAAGG GTCCTGTA 18

(2) INFORMATION FOR SEQ ID NO:9:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 26 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 9:

GTCGAATTCA AYCCNGCNAT GCCNAC 26

(2) INFORMATION FOR SEQ ID NO:10:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 26 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 10:

GTCTCTAGAA GYTTNACRTT NCCYTC 26

(2) INFORMATION FOR SEQ ID NO:11:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 43 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 11:

ATATCGGTAC CGCCTCCAGC ATGCCTCCGG CAATGCCAC ATC 43

(2) INFORMATION FOR SEQ ID NO:12:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 31 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 12:

CTGCTAGATC TGCCCGCAGA CATTACATACA G 31

(2) INFORMATION FOR SEQ ID NO: 13:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 10 amino acids

(B) TYPE: amino acid

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 13:

Ala Tyr Val His Asp Ala Pro Val Arg Ser  
1 5 10



(2) INFORMATION FOR SEQ ID NO: 14:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 10 amino acids
  - (B) TYPE: amino acid
  - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 14:

Ala Tyr Val His Asn Ala Pro Val Arg Ser  
1                      5                      10

(2) INFORMATION FOR SEQ ID NO: 15:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 10 amino acids
  - (B) TYPE: amino acid
  - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 15:

Ala Tyr Val His Glu Ala Pro Val Arg Ser  
1                      5                      10

(2) INFORMATION FOR SEQ ID NO: 16:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 10 amino acids
  - (B) TYPE: amino acid
  - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- (ix) FEATURE:
  - (B) LOCATION: 4
  - (C) IDENTIFICATION METHOD: Xaa = D-Asp
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 16:

Ala Tyr Val His Xaa Ala Pro Val Arg Ser  
1                      5                      10

(2) INFORMATION FOR SEQ ID NO: 17:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 10 amino acids
  - (B) TYPE: amino acid

- (D) TOPOLOGY: linear  
(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 17:

Ala	Tyr	Val	His	Asp	Gly	Pro	Val	Arg	Ser
1				5					10

(2) INFORMATION FOR SEQ ID NO: 18:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 10 amino acids  
(B) TYPE: amino acid  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 18:

Ala	Tyr	Val	His	Asp	Val	Pro	Val	Arg	Ser
1				5					10

(2) INFORMATION FOR SEQ ID NO: 19:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 10 amino acids  
(B) TYPE: amino acid  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 19:

Ala	Tyr	Val	Phe	Asp	Ala	Pro	Val	Arg	Ser
1				5					10

(2) INFORMATION FOR SEQ ID NO: 20:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 10 amino acids  
(B) TYPE: amino acid  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 20:

Ala	Tyr	Val	His	Asp	Ala	Ala	Val	Arg	Ser
1				5					10

(2) INFORMATION FOR SEQ ID NO: 21:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 12 amino acids
  - (B) TYPE: amino acid
  - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 21:

Glu Ala Tyr Val His Asp Ala Pro Val Arg Ser Leu  
1                      5                                      10

(2) INFORMATION FOR SEQ ID NO: 22:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 8 amino acids
  - (B) TYPE: amino acid
  - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 22:

Tyr Val His Asp Ala Pro Val Arg  
1                      5

(2) INFORMATION FOR SEQ ID NO: 23:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 6 amino acids
  - (B) TYPE: amino acid
  - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 23:

Val His Asp Ala Pro Val  
1                      5

(2) INFORMATION FOR SEQ ID NO: 24:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 4 amino acids
  - (B) TYPE: amino acid
  - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 24:

His Asp Ala Pro

**1**